

Amendments to the Claims:

1. (currently amended) A sensor element for a sensor device, the sensor element comprising:
a substrate;
a pair of proof masses that are attached to the substrate at fixed anchor points, the pair of proof masses suspended above the substrate; and
a set of drive beams positioned between the proof masses and the anchor points, the drive beams having a longitudinal first body portion that includes a first flexible spring member that extends along a first direction and a second body portion that includes a flexible spring member that extends along a second direction, the second direction being perpendicular to the first direction, the first and second flexible spring members being configured such that a drive frequency and a sense frequency of the proof masses are substantially aligned;
~~wherein the flexible spring members of the drive beams are serpentine in shape.~~

2. (original) The sensor element of claim 1 further comprising at least one base beam that interconnects the set of drive beams, the base beam having a second longitudinal body portion that extends along the second direction and a second flexible spring member that extends along the first direction.

3. (currently amended) The sensor element of claim 2 1, wherein the ~~second~~ flexible spring members are of the base beam is serpentine in shape.

4. (original) The sensor element of claim 1, wherein the substrate is made of glass and the proof masses and drive beams are made of silicon.

5. (original) The sensor element of claim 1, wherein the sensor element is used in sensing an externally induced angular rate in a gyroscope.

6. (currently amended) The sensor element of claim 1 further comprising a first pair of electrode combs that drives the proof masses in a first direction of a first plane at the drive frequency.

7. (currently amended) The sensor element of claim 6 further comprising a second pair of electrode combs and a pair of out-of-plane electrodes, the second pair of electrode combs capable of sensing the movement of the proof masses in the first plane, the pair of out-of-plane electrodes capable of sensing the movement at the sense frequency of the proof masses in a second plane, the second plane being different from the first plane.

8. (currently amended) A sensor element for a sensor device, the sensor element comprising:

a substrate;

a pair of proof masses that are attached to the substrate at fixed anchor points, the pair of proof masses suspended above the substrate; and

a set of drive beams positioned between the proof masses and the anchor points, each drive beam having a first ~~longitudinal~~ body portion that extends along a first direction in a plane and a first flexible spring member therein and a second body portion that includes a flexible spring member that extends along a second direction, the second direction in the plane being perpendicular to the first direction, the first and second flexible spring members being configured such that a drive frequency of the proof masses in the first direction of the plane and a sense frequency of the proof masses out of the plane are substantially aligned and not aligned with at least one vibrational frequency that is in the second direction in the plane; and

~~at least one base beam that interconnects the set of drive beams, the base beam having a second longitudinal body portion that extends along the second direction and a second flexible spring member that extends along the first direction.~~

9. (currently amended) The sensor element of claim 8, wherein the ~~first~~ flexible spring members of the drive beams are serpentine in shape.

10. (cancel).

11. (original) The sensor element of claim 8, wherein the substrate is made of glass and the proof masses, drive beams, and base beam are made of silicon.

12. (original) The sensor element of claim 8, wherein the sensor element is used in sensing an externally induced angular rate in a gyroscope.

13. (currently amended) The sensor element of claim 8 further comprising a first pair of electrode combs that drives the proof masses in a first direction of a first plane at the drive frequency.

14. (currently amended) The sensor element of claim 13 further comprising a second pair of electrode combs and a pair of out-of-plane electrodes, the second pair of electrode combs capable of sensing the movement of the proof masses in the first plane, the pair of out-of-plane electrodes capable of sensing the movement at the sense frequency of the proof masses in a second plane, the second plane being different from the first plane.

15. (currently amended) An electronic sensor comprising:

a digital processing unit; and

a sensor element, the sensor element comprising:

a substrate;

a pair of proof masses that are attached to the substrate at fixed anchor points, the

pair of proof masses suspended above the substrate;

a set of drive beams positioned between the proof masses and the anchor points,

each drive beam having a first longitudinal body portion that extends

along a first direction in a plane and a first flexible spring member therein

and a second body portion that includes a flexible spring member that

extends along a second direction in the plane, the second direction being

perpendicular to the first direction, the first and second flexible spring

members being configured such that a drive frequency of the proof masses

in the first direction of the plane and a sense frequency of the proof masses

out of the plane are substantially aligned and not aligned with at least one

vibrational frequency that is in the second direction in the plane; and

at least one base beam that interconnects the set of drive beams, the base beam

having a second longitudinal body portion that extends along the second

direction and a second flexible spring member that extends along the first

direction.

16. (currently amended) The electronic sensor of claim 15, wherein the ~~first~~ flexible spring members of the drive beams are serpentine in shape.

17. (cancel).

18. (original) The electronic sensor of claim 15, wherein the substrate is made of glass and the proof masses, drive beams, and base beam are made of silicon.

19. (original) The electronic sensor of claim 15, wherein the sensor element is used in sensing an externally induced angular rate in a gyroscope.

20. (currently amended) The electronic sensor of claim 15, wherein the sensor element further comprises a first pair of electrode combs that drives the proof masses in a first direction of a first plane at the drive frequency, the first pair of electrode combs receiving a signal from the digital processing unit.

21. (currently amended) The electronic sensor of claim 20, wherein the sensor element further comprises a second pair of electrode combs and a pair of out-of-plane electrodes, the second pair of electrode combs capable of sensing the movement of the proof masses in the first plane, the pair of out-of-plane electrodes capable of sensing the movement at the sense frequency of the proof masses in a second plane, the second plane being different from the first plane, the second pair of electrode combs and the pair of out-of-plane electrodes further capable of sending signals to the digital processing unit.